

a sufficient antecedent basis for a manifold. Reconsideration and withdrawal are respectfully requested.

Claims 6-7 and 21-22 stand rejected under § 102 on the basis of Wilson. Claims 21 and 22 have been canceled without prejudice. Applicant traverses the rejection of claims 6-7 because Wilson does not disclose (or suggest) an air pump having a shaft which passes through a diaphragm, and a motor that rotates around the axis of the shaft.

Referring to Figs. 16 and 17 of Wilson, a diaphragm pump is operated by a flexible cable attached to the pump on one end, and to a foot peddle on the other end. The flexible cable does not pass through the diaphragm, and there is no motor that rotates around the axis of the shaft, as in claim 6. In fact, there is no motor and no motor shaft, as required by claim 7, either. For these reasons alone, applicant requests withdrawal of this rejection.

Claim 8 stands rejected under § 102 on the basis of Meyers et al. Applicant respectfully traverses this rejection because Meyers et al. do not disclose (or suggest) an air pump having a motor shaft in threaded engagement with a diaphragm, or an air pump in which a shaft rotates in forward and reverse direction to move the diaphragm back and forth, as in claim 8.

Meyers et al. discloses a motor 140 (Fig. 5) having a rotating shaft 155. Apparently, a diaphragm 149 is moved back and forth by an off-center pin 156 attached to the motor shaft. The pin 156 extends through an opening 153. There is no threaded engagement between the shaft and the diaphragm, as in the present invention. Moreover,

the motor 140 only rotates in one direction, unlike the motor in the present invention. For these reasons, applicant requests reconsideration and withdrawal of this rejection.

Claim 13 stands rejected on the basis of Wilson and Williams. Applicant traverses this rejection because neither reference, alone in combination, discloses or suggests a breast cup assembly having a liner extending from the inlet to the outlet that is sealed to the inlet and outlet by a press fit connection, as in the present invention.

Wilson does not have a liner of any kind in a breast cup assembly, and Williams does not have such a liner either, as the examiner apparently recognizes. For this reason alone, claim 13 is patentable over the cited references.

Claims 10-12 stand rejected under § 103 on the basis of Meyers et al., Wilson and Williams. Applicant respectfully traverses this rejection because none of the references disclose or suggest a hollow boss which prevents liner pressure from pushing a portion of the liner inwardly, as in the claimed invention. For this reason alone, claims 10-12 are allowable over the cited references. Withdrawal is respectfully requested.

The Whittlestone '596 patent does not disclose a hollow boss. Applicants obtained a prototype of the Whittlestone device in New Zealand in about 1998 that has a hollow bung that is press fit into the milk outlet end of the breast cup. The prototype was brought to the U.S. in about 1998, but has not been offered for sale or shown publicly. It is not believed to be prior art. Applicant will show the device to the examiner on request.

For the foregoing reasons, applicant believes that this case is in condition for allowance, which is respectfully requested. The examiner should call applicant's attorney if an interview would expedite prosecution.

Respectfully submitted,

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the Claims:**

Claims 21 and 22 were canceled, without prejudice, and claim 10 was amended

as follows.

10. (Amended) Apparatus for expressing milk from a breast comprising:  
a milk collector unit having a manifold assembly, the manifold assembly  
having a vacuum path and a pulsating pressure path,  
a collection vessel operatively connected to said vacuum path,  
a cup assembly, said cup assembly having a housing having an inlet and  
an outlet, a pad located in the input end of said housing, and a liner extending from said  
housing inlet to said housing outlet, said liner being secured to said housing to form a space  
between said housing and said liner which is in communication with said pulsating pressure  
path, pressure in said pulsating path pushing said liner inwardly within said housing, and  
a hollow boss which prevents the pressure from pushing a portion of said liner  
inwardly.